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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/554,027	10/21/2005	Mikael Nordenfelt	69521-81893	7935
7590 HARNESS, DICKEY AND PIERCE, P.L.C. 11730 PLAZA AMERICA DRIVE SUITE 600 RESTON, VA 20190			EXAMINER LUU, THANH X	
			ART UNIT 2878	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	03/14/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/554,027	NORDENFELT ET AL.	
	Examiner	Art Unit	
	Thanh X. Luu	2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-27 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 21 October 2005 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date: _____.	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the four area array sensors must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, "the code track" lacks proper antecedent basis. It is unclear which code track is being referred to as there are two code tracks claimed. Also, "the imaged pattern of the code tracks" and "the imaged code tracks" lacks proper antecedent basis because the imaging of the code tracks or pattern of the code tracks have not been claimed before. In addition, "the period length used in the position calculation" and "the position calculation" lacks proper antecedent basis. Thus, it unclear what Applicant is intending to claim.

Regarding claim 2, "the scale element" lacks proper antecedent basis. Furthermore, a disk is already claimed in claim 1, it is unclear how many disks are in the invention.

Regarding claims 5 and 23, "the scale element" and "the emitted light" lacks proper antecedent basis.

Regarding claim 6, "the image of the code tracks" lacks proper antecedent basis.

Regarding claim 7, "the incremental and absolute code tracks" lacks proper antecedent basis. Furthermore, it is unclear how at least two area array sensors is related to the area array sensor previously claimed. It is unclear, how many area array sensors are being claimed.

Regarding claim 9, "the incremental track image", "the scale element" and "the

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code track" lacks proper antecedent basis. Furthermore, it is unclear what "it" refers to.

Regarding claims 10, 20 and 25, "the Fourier phase algorithm" and "fluctuating tracks" lacks proper antecedent basis.

Regarding claim 11, "the incremental and absolute code tracks" lacks proper antecedent basis. Furthermore, it is unclear how four area array sensors is related to the area array sensor previously claimed. It is unclear, how many area array sensors are being claimed.

Regarding claims 12 and 21, "the imaged pattern of the code tracks" and "the period length used in the position calculation" and "the position calculation" lacks proper antecedent basis. Thus, it is unclear what Applicant is intending to claim.

Regarding claim 13, "the optical disk opaque with..." is improper. Furthermore, it is unclear how the transparent or opaque track markings are related to the incremental and absolute code tracks.

Regarding claims 16 and 22, it is unclear how at least two area array sensors is related to the area array sensor previously claimed. It is unclear, how many area array sensors are being claimed.

Regarding claims 19 and 24, "the same pattern period" lacks proper antecedent basis. Furthermore, it is unclear what "it" refers to.

Regarding claim 27, it is unclear how four area array sensors is related to the area array sensor previously claimed. It is unclear, how many area array sensors are being claimed.

Since it is unclear what Applicant is intending to claim, the claims have not been

examined on their merits.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is 571-272-2441. The examiner can normally be reached on M-F 6:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thanh X Luu
Primary Examiner
Art Unit 2878

03/2007